|  |  |
| --- | --- |
| **Case Title**  | Cardiac Tamponade- in a Cancer Patient |
| **Scenario Name** |  |

|  |
| --- |
| **Learning Objectives (3 or more)** [Use action words](http://ubccpd.ca/sites/ubccpd.ca/files/Accreditation_Learning%252520Objectives_%252520Verbs.pdf) |
| **Knowledge:**1. Approach to Cardiogenic Shock
2. Management of Cardiac Tamponade
 |
| **Skills:**1. Demonstrate airway management
2. Perform pericardiocentesis
3. Manage hypotension
 |
| **Attitude/Behaviours**1. Demonstrate Team skills
2. Demonstrate Situational awareness
3. Demonstrate Graded Assertiveness
 |
| **Scenario Environment** |
| **Location** | ER |
| **Monitors** | Telemetry/ Crash Cart/ defibrillator |
| **Props/Equipment** | Defibrillator, Airway equipmentEKG, ACLS Algorithms on hand |
| **Make-up/Moulage** | None |
| **Potential Distractors** | None |

|  |
| --- |
| **Case Introduction:** |
| 60-year-old women, severe dyspnea and tachycardia, 5 minute ETA.  |

| **Patient Parameters** | **Effective Management** | **Notes** |
| --- | --- | --- |
| **Phase 1: Unstable Cardiac Tamponade****Condition:** Unstable Patient is pale, diaphoretic with increased work of breathing**Initial Assessment*** **Heart Rhythm:** Sinus Tachycardia
* **HR:** 140
* **BP:** 80/60
* **RR:** 40
* **SP02:** 94%
* **CVS:**  Distended neck veins are observed on exam
 | * **Take a focused history** (see Notes column)
* **Medical Management**
* Airway Management – RSI with conservative drug dosages required.
* Pericardiocentesis
* Hypotension management– fluid and

vasopressor**Consequences of ineffective management*** If pericardiocentesis not performed correctly or in a timely manner- progress to Phase 2 (PEA Arrest).
* If performed correctly, progress to Phase 3 (Condition improves)
 | **Focused history*** Increasing dyspnea over 2 days,
* Poor appetite and PO intake

**PMHx*** Metastatic Breast Cancer
* Currently on chemo and radiation therapy

**Meds*** Chemo and radiation therapy
* Other meds unknown

**Allergies*** None
 |
| **Phase 2: PEA Arrest****Condition:** Coding**Physical Examination*** **Heart Rhythm:** Sinus Tachycardia
* **HR:**  130
* **BP:** -/-
* **RR:** apneic
* **CNS:** unresponsive
* **CVS:** No palpable pulses
 | 1. **Patient Reassessment** (see Notes column)
2. **Medical Management**
3. PEA Management:
	1. Epi q 3-5minutes
	2. Run PEA algorithm – H’s and T’s
	3. Pericardiocentesis if not already performed

**Consequences of ineffective management*** If pericardiocentesis not performed correctly- remain in PEA Arrest
 | 1. **Patient Reassessment**

**Airway*** Not patent- needs to intubate

**Breathing** * Apneic- needs to use BVM

**Circulation*** No palpable pulse- needs to do CPR
 |
| **Phase 3: Condition Improves****Condition:** Stabilized(progress to this **ONLY** if Pericardiocentesis is performed correctly) **Physical Examination*** **Heart Rhythm:** Sinus Tachycardia
* **HR:** 110
* **BP:** 92/64
* **RR:** 18
* **Chest:** Good – equal A/E
 | 1. **Patient Reassessment** (see Notes column)-*Recognizes change in condition*
2. **Medical Management:**
* Consults ICU for possible drain placement
 | 1. **Patient Reassessment**

**Airway*** if intubated patient breathing on own
* If BVM patient, breathing on own, biting on airway

**Breathing** * Good – equal A/E

**Circulation*** Yellow fluid from syringe
* BP improves with fluid removed
 |

**Insert more lines if more phases required.**

|  |  |
| --- | --- |
| **Expected Patient Management** | **Debriefing Points** |
| 1. **Student**
2. **R1**
3. **Senior IM resident**
 |  |

**References:**

**LABS – click** [here](https://extranet.interiorhealth.ca/IHUBCFaculty/Diagnostics/Forms/AllItems.aspx?RootFolder=%25252FIHUBCFaculty%25252FDiagnostics%25252FLabs&View=%25257bFD97E2FE-FD01-433F-B9CB-D75A4195924E%25257d) **OR fill out below**

RUN DATE: Today LABORATORY \*LIVE\* Lab Summary Report

LOCATION

|  |  |
| --- | --- |
| Name:  | Age/Sex:  |
| Acct#:  | Unit#:  | Status: Admitted  | Location: SIM  |
| Reg:  | Disch:  | Code status -  |
| COMPLETE BLOOD COUNT |
| Date  |  |  |  |  |  |
| Time  |  |  |  | Reference | Units |
| WBC |  |  |  | H |  |  | (3.5-10.8) | 10^9/L |
| Toxic changes seen |  |  |  |  |  |  | (4.3-5.7) | 10^12/l |
| Hgb |  |  |  | L |  |  | (130-170) | g/L |
| MCV |  |  |  | L |  |  | (0.37-0.47) | L/L |
| Platelets |  |  |  | H |  |  | (150-400) | 10^9/L |
| INR |  |  |  | H |  |  | 0.9-1.2 |  |
| D-Dimer |  |  |  |  |  |  |  |  |
| PTT |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| CHEMISTRY |
| ADMISSION |  |  |  |  |  |
|  |  |  |  |  |  |
| Glucose-Random |  |  |  | H |  |  | (3.0-11.0) | mmol/L |
| Na |  |  |  | L |  |  | (137-145) | mmol/L |
| K |  |  |  | H |  |  | (3.5-5.0) | mmol/L |
| Cl |  |  |  |  |  |  | (98-107) | mmol/L |
| HCO3 |  |  |  | L |  |  | (22-26) | mmol/L |
| Urea |  | H |  | H |  |  | (2.5-6.1) | mmol/L |
| Creat |  |  |  | H |  |  | (62-106) | mmol/L |
| GFR Est |  |  |  | L |  |  | (> 60) | ml/min |
| C Reactive Protein |  |  |  | H |  |  | <10 |  |
| Lactic Acid |  |  |  | H |  |  | <2.0 | mmol/L |
| ARTERIAL BLOOD GASpH - , PC02 – , p02 – , HC03 – , O2 Sat - % |